WHAT IS CLAIMED IS:

1.   A computer-assisted diagnosis method for assisting diagnosis of three-dimensional digital image data, comprising the steps of:

identifying three-dimensional objects within the three-dimensional image data;

for a given three-dimensional object:

determining a local spinning plane for the given object, the local spinning plane being centered at a centroid and a local spinning axis of the given object;

rotating the local spinning plane at least a portion of 360 degrees; and

creating a view of the given object at predefined increments of rotation, so as to result in a plurality of views of the given object.

2.   A computer-assisted diagnosis method for assisting diagnosis of three-dimensional digital image data, comprising the steps of:

receiving indicia identifying at least one region of interest in a digital medical image; and

identifying three-dimensional objects within the at least one region of interest;

for a given three-dimensional object within the at least one region:

determining an extent, a centroid, and a local spinning axis of the given object;

determining a local spinning plane for the given

object, the local spinning plane being centered at the centroid and the local spinning axis;

rotating the local spinning plane at least a portion of 360 degrees, wherein said rotating step comprises the step of:

creating a view of the given object at predefined increments of rotation, so as to result in a plurality of views of the given object.

3. The method according to claim 2, wherein said step of determining the extent of the given object comprises the step of examining connected voxels within a predefined volume on adjacent tomographic slices .

4. The method according to claim 2, wherein the local spinning plane is initially oriented at a same angle as a current two-dimensional view of the three-dimensional digital image data.

5. The method according to claim 2, wherein said step of providing the plurality of views of the given object further comprises the step of providing a plurality of views of areas surrounding the given object.

6. The method according to claim 2, wherein the indicia is provided from a user through one of a mouse and an eye tracking device.

7.   The method according to claim 2, wherein said providing step further comprises the step of determining at least one of a volume, a geometrical location, and a center of mass of the given object.

8.   The method according to claim 2, wherein said providing step further comprises the step of determining one of a circularity and a sphericity of the given object.

9.   The method according to claim 2, wherein said providing step further comprises the step of determining a mean, a variance, and a min/max of intensity values within the given object.

10.   The method according to claim 2, wherein said providing step further comprises the step of determining a texture, a surface smoothness, and regularity measures of the given object.

11.   The method according to claim 2, wherein said providing step further comprises the step of determining two-dimensional and three-dimensional shape measures of the given object.

12.   The method according to claim 2, further comprising the step of storing results from said providing step in a table for comparison with at least one of preceding or succeeding scans of a same patient.

13. The method according to claim 12, further comprising the step of storing a confidence value in the table that indicates an estimate of a clinical relevance of the given object.

14. The method according to claim 2, further comprising the steps of:

setting thresholds for particular features of particular objects that represent whether the particular objects are abnormal; and

identifying a given object that exceeds a given threshold.

15. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform steps for computer-assisted diagnosis of three-dimensional digital image data, said method steps comprising:

receiving indicia identifying at least one region of interest in a digital medical image; and

identifying three-dimensional objects within the at least one region of interest;

for a given three-dimensional object within the at least one region:

determining an extent, a centroid, and a local spinning axis of the given object;

determining a local spinning plane for the given

object, the local spinning plane being centered at the
centroid and the local spinning axis;

rotating the local spinning plane at least a portion
of 360 degrees, wherein said rotating step comprises the step
of:

creating a view of the given object at
predefined increments of rotation, so as to result in a
plurality of views of the given object.

16.   The program storage device according to claim 15,
wherein said step of determining the extent of the given
object comprises the step of examining connected voxels within
a predefined volume on adjacent tomographic slices .

17.   The program storage device according to claim 15,
wherein the local spinning plane is initially oriented at a
same angle as a current two-dimensional view of the three-
dimensional digital image data.

18.   The program storage device according to claim 15,
wherein said step of providing the plurality of views of the
given object further comprises the step of providing a
plurality of views of areas surrounding the given object.

19.   The program storage device according to claim 16,
wherein the indicia is provided from a user through one of a
mouse and an eye tracking device.

20. The program storage device according to claim 15, wherein said providing step further comprises the step of determining at least one of a volume, a geometrical location, and a center of mass of the given object.

21. The program storage device according to claim 15, wherein said providing step further comprises the step of determining one of a circularity and a sphericity of the given object.

22. The program storage device according to claim 15, wherein said providing step further comprises the step of determining a mean, a variance, and a min/max of intensity values within the given object.

23. The program storage device according to claim 15, wherein said providing step further comprises the step of determining a texture, a surface smoothness, and regularity measures of the given object.

24. The program storage device according to claim 15, wherein said providing step further comprises the step of determining two-dimensional and three-dimensional shape measures of the given object.

25. The program storage device according to claim 15, further comprising the step of storing results from said providing step in a table for comparison with at least one of

preceding or succeeding scans of a same patient.

26.   The program storage device according to claim 25, further comprising the step of storing a confidence value in the table that indicates an estimate of a clinical relevance of the given object.

27.   The program storage device according to claim 15, further comprising the steps of:

setting thresholds for particular features of particular objects that represent whether the particular objects are abnormal; and

identifying a given object that exceeds a given threshold.